Tackling the U.K. productivity puzzle
‘Productivity isn’t everything, but in the long run it is almost everything’.¹

Paul Krugman, the Nobel Prize-winning economist

Foreword

Andrew Harding
General Secretary of CIMA

Even before the COVID-19 pandemic hit, the global economy was experiencing a decline in productivity growth.² Of course, there were exceptions and, as such, some countries continued to ensure high productivity growth, while many others recorded slow productivity growth over the last decade since the 2008 financial crisis. Evidence from the World Bank shows that this post-crisis slowdown in productivity growth affected 70% of advanced economies in the world.³ In the U.S., a period of boom and dynamism between 1995 and 2004 was followed by a sharp decline and while that included the effect of the financial crisis, many were surprised to see a slower growth rate than the one recorded during the Great Depression of the 1930s and speculations on what caused the rapid growth between 1995 and 2004 continue.⁴

The productivity slowdown is considered one of the most impactful economic conditions of the last two decades. It is a complex problem, often referred to as the ‘productivity puzzle’, because we still cannot fully comprehend and explain its root cause. Productivity growth, when achieved, leads to higher labour income, profits and capital gains of businesses, higher public sector

¹ Paul Krugman, The Age of Diminishing Expectations (1994)
revenue and an improved living standard evident by higher income and better work-life balance.\(^5\) Governments encourage value-added growth – improving the quality and volume of goods and services. This triggers what is known as a virtuous cycle of growth – rising incomes and increases in demand for more and better goods and services. The opposite of that is a situation of stagnation, in which reduced consumption and investments limit demand, and diminish productivity growth, negatively affecting income growth for households and further depressing demand.\(^6\)

Against this background, the COVID-19 pandemic has caused unprecedented economic disruption across the world. The U.K. economy, for example, has suffered a severe downturn due to the pandemic. Gross Domestic Product (GDP) shrank by nearly 15% in just one year, as commerce and demand slowed.\(^7\) There are concerns that this may hamper productivity growth further. Yet some studies are suggesting that the post-pandemic economic recovery may lead to enhanced productivity growth. McKinsey Global Institute, for example, found that there is potential for accelerated annual productivity growth by about one percentage point in the period to 2024.\(^8\) Restricting business activity by introducing lockdowns during the pandemic may have forced new ways of doing things, as consumers inevitably changed their behaviour and businesses had to invest in and rely on new technologies to continue operating and engaging with their customers. Re-thinking the lessons learned in the last 18 months and calibrating, once more, to explore regained freedoms, firms are now looking to reshape their business models and improve productivity. In search of ways to ‘build back better’, productivity is seen as a key part of economic growth and performance both at a firm and a national level.

This report explores the issue of productivity – what it is, how it is measured and why it is important. It covers some of the key factors that affect productivity and how productivity can be improved. It also captures management accountants’ roles in decision-making and strategies for productivity growth. Management accountants’ contribution to analysing and measuring firms’ level of productivity is critical and with that in mind the report aims to inform and provoke CIMA members to develop a holistic approach towards productivity. We recognise the critical role, played by accountants in transforming businesses and we will touch on some of the factors, determining productivity on both micro and macro levels, how these are managed, while attempting to highlight ways in which productivity can be improved. The report will include recommendations to policymakers and business leaders that aim to support them in improving productivity.

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Introduction

If the U.K. was a U.S. state, it would be the poorest U.S. state. We came to this concerning realisation by comparing Office of National Statistics (ONS) Year Ending 2019 Household Income Data and 2019 Median Household Income data from the United States Census Bureau, as presented below.

According to this data, U.K. households are on average poorer than those in Mississippi, Arkansas and Louisiana. The research builds on an earlier study conducted in 2016, which compared GDP per capita on a purchasing power parity basis in U.S. states with a number of different European and Asian countries and found that the U.K. would be the fourth poorest state.

Comparing the U.K. and U.S. is complicated by the different ways of measuring median household income and the differences in tax, welfare policy and the cost of living between the U.K. and each of the U.S. states. For example, the U.S. figures are for the calendar year of 2019, the U.K. collects data for 2018–19 and 2019–20. We have used the 2019–20 data for the U.K. as it covers more of the year, but it increases the U.K. figure. The U.S.

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10 U.S. GDP per capita by state vs. European countries and Japan, Korea, Mexico and China and some lessons for The Donald | American Enterprise Institute – AEI
statistics show household income pre-tax. For the U.K., we include four separate figures so you can see the impact of tax and welfare payments on U.K. household income.

The figures are as follows:

- Original household income
- Gross household income (original plus cash benefits)
- Mean disposable household income
- Median disposable household income

We focus on the original and gross income figures we see how poor the U.K. is compared to the U.S. states and the effect of U.K. welfare policy. Converting the average (equivalised) original U.K. household income figure of £42,487 and converting it to U.S. dollars ($54,264) by applying the average exchange rate for 2019 (1.2772). It demonstrates that the U.K. would be the 44th poorest U.S. state. Comparing the gross median household (equivalised) income, including benefits, the U.K. would be the 31st-poorest state.

This is before we consider that U.S. taxes are lower, so U.K. incomes are reduced by more. You can see the effect of U.K. taxation by viewing the mean and median disposable figures for the U.K., which put it firmly as one of the poorest states.

Productivity is key to increasing U.K. household incomes and making the nation and its citizens wealthier. This report will show that productivity has a clear link with increased wages. Productivity increases can drive real wage growth and historically have done that. Yet, as this report shows, in recent years there have been occasions when increased productivity has not meant increased wages. Therefore, if the U.K. is to create real wage growth, not only does it need to meet its productivity challenge, but it also needs to make sure increases in productivity translate into increased wages on a parity with the improved productivity.

Not only can productivity increase wages, but it can also improve business’s bottom line with over 50% of our members surveyed making a discretion that a 1% improvement would increase their firms’ bottom line and 20% of members surveyed saying it would improve their bottom line by 5-10%.

In 2018, the FTSE 100 companies generated profit just over £312 billion between them and, in 2020, the average profit for a U.K. SME was £11,000. Given the U.K. had around six million SMEs in 2020, that works out to a total profit for SMEs of around £66 billion, which is not a precise calculation, but does give us an indication of U.K. SMEs’ profit in 2020. Adding up the FTSE 100 and U.K. SMEs’ profits would make £378 billion and a 1% increase in productivity, resulting in a 5% increase in businesses bottom lines, could mean an increase of £18.9 billion to U.K. companies and the wider economy. This is just based on FTSE 100 and U.K. SMEs; other large companies are not included in this calculation and neither is the public sector, which makes up a significant part of the U.K. economy.

This demonstrates that a 1% boost in productivity could have a significant impact on the profits of U.K. companies. This, in turn, would help the wider economy and mean more money for companies to invest to make productivity improvements, support new jobs and increase wages. This would mean a boost to household incomes and the government would collect more tax revenue and could choose where to spend that additional money or use it to cut taxes.

The U.K. Productivity Challenge

The U.K. has double the productivity puzzle since the 2008 Financial Crisis compared to the rest of the G7 countries. U.K. productivity slowdown was 15.6% in 2016 which is around double the average of 8.7% across the rest of the G7. U.K.’s

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11 https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/datasets/householddisposableincomeandinequality
12 Top 100 UK Companies Ranked By Profit & Revenue Per Employee (merchantmachine.co.uk)
13 Average profit of UK SME, by size 2020 | Statista
productivity slowdown was more comprehensive than that of France, Germany and Spain, and occurred across all regions, affecting 83% of sectors in the U.K. economy.\textsuperscript{15}

However, even though the productivity slowdown has affected all regions of the U.K., some regions have been worse affected and faced long-term productivity issues compared to others. Per capita GDP of some parts of the U.K. is lower today than that the output now being achieved by what was formerly East Germany 30 years ago. This shows the scale of the U.K. productivity problem.

**Purpose of the report**

That is why this report highlights to our members, ourselves, business and policymakers in the U.K. some, not only key findings around the U.K. productivity challenge, but how productivity can be improved and what are the important drivers of productivity. The report looks into trade and competition; skills; regional variations; technology; human capital as key areas that can help drive productivity growth.

The report is designed to help accountants and finance professionals, business leaders and policymakers alike understand the key issues within productivity, measuring and tracking it and how productivity growth can be improved. The report contains several recommendations to our members, ourselves, businesses, and policymakers. However, the overwhelming number of recommendations are for policymakers as they create and shape the overall environment in which businesses and our members operate.

**New thinking and commitment to tackle the productivity challenge needed**

The scale of the problem is clear, but also the potential gains from increased productivity for the average citizen, the public finances and the private sector. If the U.K. government is going to take this challenge seriously then a change in thinking and approach is needed. Tackling our productivity challenge must become one of the key economic missions of the government. It should have as much importance as preventing mass unemployment or high inflation.

To help meet this challenge the government needs to create a Productivity Commission that draws on experience from Australia, New Zealand and South Africa who all have such commissions. This commission should have the ultimate aim of improving productivity in every region of the U.K., making sure that the U.K. is leading the OECD nations towards productivity improvement in the future, and to making sure that wider society and citizens feel the benefit of improved productivity. This new Commission should be set up similarly to the Bank of England or Office of Budget Responsibility (OBR) with it being independent and having the ability to sound the alarm.

Alongside this new Commission, the U.K. government must release a productivity strategy that it will be measured against. Slower productivity growth than the rest of the OECD is a serious economic threat and harms public finances, wage growth and creating a more prosperous U.K. If the government wishes to level up the U.K., create real wage growth and have more sustainable economic growth than they need to have a clear plan to improve productivity. The Productivity Commission this report proposes could hold the U.K. government’s feet to the fire overdelivering against a productivity strategy.

CIMA considers Productivity a critically important area of development. We will continue exploring opportunities for both our members and the U.K. government to act on recommendations and ensure progress and we will proactively discuss micro and macro barriers, in order to support stakeholders in driving more productivity.

Methodology

In order to come up with our findings and recommendations, we started with an extensive desktop research in the summer of 2021. As part of that, information from reliable sources has been identified, reviewed and used in the report, as evidenced by references provided.

Next, during the month of October 2021, we organised a series of focus group discussions with senior CIMA members, engaged in key sectors of the economy — manufacturing, consultancy services, education, IT and communications, transport, and public regulators. Focus group discussion is a qualitative data-gathering technique, where the researcher facilitates a group of individuals who exchange ideas and share thoughts on a specific topic. The conversation unveils participants personal experiences and is a form of participatory research, relying on the group dynamics or the dialogue between participants. With that in mind, the interaction was moderated by the authors who invited participants to share their views, by discussing the following key questions:

1. How does your organization define productivity?
2. How do you track and monitor productivity? How often?
3. What have you been doing to become more productive? What has the impact been so far? How does this link with plans for the future?
4. What government policy can incentivise productivity in your specific case?

Focus groups were run under Chatham House Rules, where information disclosed is summarised and reported here, but the source of that information is not explicitly or implicitly identified.

Finally, a survey combining open and closed questions was distributed and completed by 117 CIMA members and industry managers, who chose to participate and bring us further insights and lessons learned in their professional practice. 83% of survey respondents occupy senior manager, director, senior directors or C-Suite leadership roles and 45% of them work for entities that employ more than 1000 people, operating in a broad range of industries. 83% of members surveyed work full time, 11% part-time and 6% are self-employed.

We trust that the data collected by us gives us sufficient information and provides a good basis for analysing and presenting this report, which aims to inform productivity strategies of businesses and the government.

Given that we have a sustained interest in the topic, our work will continue in 2022. In phase two of CIMA’s Productivity initiative, we plan to run a series of semi-structured interviews, leading to meaningful case studies that will create in-depth insights, telling the stories of specific organisations and their productivity journey.
Executive summary

Key highlights about productivity

- Australian Productivity Commission confirms that wage growth, achieved in the last 120 years appears to be almost entirely due to labour productivity growth.

- Research shows that in the past decade U.K. productivity growth has been slower than at any time since the Industrial Revolution, affecting 83% of all sectors in the U.K.

- U.K. has the largest drop in productivity post-2008 crisis. It decreased by 15.6% in 2016, which is around double the average of 8.7% across the rest of the G7, according to the ONS.

- This may explain why the U.K. would be the poorest U.S. state, if it was within the USA (based on median household income in 2019, as reported by ONS and US Census Bureau).

- Some parts of the U.K. produce less than the regions in East Germany that formerly were known as ‘East Germany’ produced 30 years ago (measured by per capita GDP).

- Only a third of jobs in England and Wales require a higher education qualification. At the same time, around 30% of workers in England are overqualified for their job, one of the highest figures for the OECD.

- In OECD countries the most productive region is, on average, twice as productive as the least productive region.

- Of the current FTSE 350 companies over 70% are located in London and the South East.

- Paris is more Productive than London — In France, Île-de-France, which includes the city of Paris, produces 54% above the U.K. average productivity. London generates 39% above the U.K. average.

- Higher-skilled employees are more likely to equate to higher wages.

- U.K.’s educational performance is below the OECD average up until the ages of 30 for literacy and 35 for numeracy.

- The relative size of the low-skill group is three times larger in England than in the top-performing countries, like Japan and Finland.

- Every dollar spent on R&D, pays off four times in the long run.

- U.K. universities produce highly cited publications, but they are considered to be relatively weaker at translational research, which is closer to commercialisation, compared to basic research.

- Improvements in management practices will enhance productivity. These include how well firms monitor their progress and continuous improvement, whether they set and track the right targets and outcomes and how they motivate employees.
Key highlights about productivity (continued)

- According to the OECD, Information and Computer Technologies investments accounted for over 50% of the labour productivity growth in Canada between 2000 and 2009.
- Those efficiencies are however only possible if demand is robust and innovations spread widely, not only in large corporations, called by some ‘superstars’.
- Highly productive organisations have spent about 10 times as much on restructuring and organisational change as on new information and communications technologies.
- New technologies have been singled out by both members surveyed and participants in our focus groups as the most impactful factor when it comes to productivity. The next nearest positive impacts would come from hybrid working and accumulation of knowledge, sharing of ideas and know-how.
- The top three blockages to productivity, identified by members surveyed, relate to lack of skills both within organisations and nationally.
- The U.K. Help to Grow Management scheme is not up to scale with only enough funding for 0.5% of U.K. SMEs.
- Firms that trade globally are more likely to be more productive, due to efficiencies and innovation.
- Private companies facing competition are likely to be significantly more productive than those that do not, due to mobilisation.
- Inefficient firms that manage to survive are known as ‘Zombie Firms’. Removing them from the market will enhance productivity.
- 2020 Australia Productivity Commission report on mental health found that the costs of mental ill health and suicide due to lower economic participation and lost productivity in 2018-19 was estimated at $12–39 billion, which is comparable to the revenues earned by a substantial FTSE 100 business.
- Over 50% of our members surveyed believe that a 1% increase in productivity would improve their results. Over 20% of our informants make a discretion that a 1% boost in productivity increases the financial result between 5% and 10%.
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How is productivity defined and measured

Micro-level productivity

On a firm or institutional level, a universal way of defining and measuring productivity that can be applied in all industries and companies does not exist. A limited number of productivity indicators may be derived from a company’s financial statements. Overall, firm productivity may be measured by reference to various resources to indicate how they contribute to revenue generation or profit-making. To achieve that, comparisons of total labor costs to any of the turnover, earnings before interest, tax, depreciation and amortisation (EBITDA) or net profit before tax may be used. By the same token, individual employee productivity may be measured by calculating turnover, EBITDA or profit per employee. The amount of tangible and intangible assets may also be compared to the turnover, or assets per employee may be reviewed.

As part of management reporting, a common formula to calculate productivity on a firm-level is:

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\text{Productivity} = \frac{\text{Units of output}}{\text{Units of inputs}}
\]

Defining and measuring productivity. Wicked problems

Definition provided by the U.K. members we surveyed vary, but they often link with results orientation of individual businesses. On the one hand, productivity is understood from the perspective of the customer and meeting their needs and maximising their value. On the other, it is about the utilisation of resources, allocated to valuable activities.

In terms of how productivity is measured, members report about combinations of various financial and non-financial categories. Reporting productivity covers a broader spectrum of key performance indicators (KPIs) than standard input and output related ones, which are applicable in manufacturing, but may be ambiguous when applied to delivery of services for example. Therefore, many of the KPIs mentioned by our informants do not fit in the standard definition and understanding of productivity and may not be verbalised by using the term ‘productivity’. A multitude of definitions and understandings of productivity exist economy-wise, which is dictated by the operational logic of each industry and/or organisation. Thinking about productivity broadly, as a measure of optimal performance, would mean that in almost all organisations surveyed efficiency is monitored. In those rare occasions where tracking is not performed, this is explained with the size of the business — normally micro businesses, where the discretion is that the time, effort and cost taken to measure productivity in a standard way is better spent on producing outputs, innovating, developing the business, seeking feedback from clients or reflecting on experiences to learn. Some respondents also speak of non-routine processes and unique products and projects, where measurement needs to be adaptable and cannot be standardised.

93% of members surveyed admit they face challenges with tracking productivity and only 7% of the respondents say their organisation does not have difficulty with that.

This is not a surprise, given that often assets have uncertain value. In addition, resources that represent company’s uniqueness like customer goodwill, brand, etc. are not recorded in the financial system, due to a lack of reliable measurement basis, as defined by accounting rules. Our members reported challenges with attributing value to intangible aspects of investments, resources and products and with assessing productivity in customer-supplier relationships, given its subjective nature. Constant change, lag of time between activity and availability of information, lack of resources and inadequate systems have also been pointed out. However, it is recognised

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16 What’s a Wicked Problem? | Wicked Problem (storybook.edu)
that productivity measurement should focus on overall capabilities, not on a single input element. Focusing on labour, machines or materials may have been reasonable in the past, but the question is whether it is making economic sense now. The problem with a fixation on single-factor productivity measures (output per labor or machine hour or ton of materials) is that it is easy to increase productivity in one area, while reducing it in another. Traditional systems of measuring productivity also overlook the role of people, culture, creativity and innovations, all of which cannot be easily measured directly by way of linking actions to outputs.  

They all relate to the human factor and the fact that we do not work in isolation and interdependencies need to be managed to balance order with novelty.

Only a quarter of the respondents informed us that productivity is measured by management accountants in their organisation. Measuring productivity is also done by professionals in the finance, HR, data analysis and operations team. Almost a quarter of the members surveyed say that directors are responsible for tracking productivity in their organisations. All this reveals an interesting perspective on business partnering, operational and strategic data analytics and internal coordination.

However, what was clear from the survey of our members is more than 50% of respondents made it clear that a finance function of some description is tracking and monitoring productivity for their organisation. This shows the accountants and trained finance professionals are key for organisations when monitoring and tracking productivity and will be when going forward.

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### Industry Data Table

Some industry insights, obtained during our focus group sessions:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Examples of productivity measures (quantitative)</th>
<th>Examples of productivity measures (qualitative)</th>
<th>Challenges</th>
<th>Ways to improve productivity</th>
</tr>
</thead>
</table>
| Education                       | • Exam success-pass rates, average results (GPA)                                                                      | • Student feedback: how they felt about the programme/course content and delivery                                 | • Success is collaboratively achieved by the provider and the learner  
  • Subjectivity in measuring both inputs and outputs  
  • Trade-off between personal touch and economies of scale  
  • Regulation  
  • Reputational issues                                                                 | • Using learning analytics to monitor student engagement and results  
  • Upskilled, motivated and experienced staff  
  • Benchmarking against competitors  
  • Digitalisation, but in a tailored manner – using functionalities with student and internal efficiency focus  
  • Ensure that the organisation is learning from the experience                                                                                                                                       |
| Equipment installation maintenance | • Capex productivity (whether capital invested earns money)  
  • Engineering field force productivity (using time efficiently)  
  • Inventory inputs/production output                                                                 | • Customer feedback on products                                                                                   | • Value-producing initiatives may not be revenue-producing (e.g., time to reach the customer). Measurement challenges  
  • COVID made them re-define their productivity, given that contact time was restricted  
  • Unproductive activities operated to respond to social responsibilities                                                                 | • New modern delivery technology  
  • Incentives by the government for customers to adopt new technologies  
  • Transformation programmes  
  • New ways of working (configuration of people in the team)  
  • Skills                                                                                                                                                                                                 |
| Manufacturing                   | • Utilisation of staff time on chargeable projects  
  • Overtime per project  
  • Project value earned vs. value traded  
  • Non-conformance costs  
  • Value engineering in partnership with suppliers  
  • Labour productivity vs. standard  
  • Total output in money terms/capital invested  
  • Return on investment of HR, learning and development, procurement function                                                                 | • Balanced scorecards per project, completed by clients                                                         | • Setting standards  
  • Suboptimisation/beating the numbers                                                                 | • Flexible, on-demand, real-time data analytics tools  
  • Upskilling finance staff to use the full potential of data analytics tools  
  • Business partnering to interpret data and having honest conversations when things are going wrong with some projects/product  
  • Continuous assessment, improvement and risk management  
  • Remember not only what works, but also what does not work                                                                                                                                               |
| Service unit/call center        | • Total cost per unit of output invoiced  
  • Call volume  
  • How long it takes to answer                                                                                                           | • Customer satisfaction                                                                                                                                                      | • Inflexible regulations when it comes to recruiting staff from abroad                                                                 | • Introducing chatbots to increase response volume of time unit  
  • Allowing people to choose where to work from (home or office)  
  • Looking at productivity holistically and flexibly (e.g., people may be less productive when working from home, but they have better work-life balance and it means fewer rental costs and less sickness)                                                                 |
| Public services                 | • Efficiency savings  
  • Value engineering in partnership with suppliers  
  • Adding public value vs. commercial value  
  • Making regulatory decisions within certain timeframes and conditions (SLAs)                                                            | • Customer satisfaction/complaints/procedures                                                                     | • Balancing private and public interest                                                                                                                                                                    | • Internal website, where employees suggest improvements  
  • Benefits realisation circle/knowledge management/lessons learnt  
  • Digital mindset, supported by COVID creates in-house capability to transform processes internally                                                                                                                                 |

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### Notes

- **Education**
  - Exam success-pass rates, average results (GPA)
  - Retention rates (% of students who do not drop out of the course)
  - Employability
  - Engagement and responsiveness measured by participation

- **Equipment installation maintenance**
  - Capex productivity (whether capital invested earns money)
  - Engineering field force productivity (using time efficiently)
  - Inventory inputs/production output

- **Manufacturing**
  - Utilisation of staff time on chargeable projects
  - Overtime per project
  - Project value earned vs. value traded
  - Non-conformance costs
  - Value engineering in partnership with suppliers
  - Labour productivity vs. standard
  - Total output in money terms/capital invested
  - Return on investment of HR, learning and development, procurement function

- **Service unit/call center**
  - Total cost per unit of output invoiced
  - Call volume
  - How long it takes to answer

- **Public services**
  - Efficiency savings
  - Value engineering in partnership with suppliers
  - Adding public value vs. commercial value
  - Making regulatory decisions within certain timeframes and conditions (SLAs)
The importance of management accountants

Management accountants are at the heart of improving productivity and performance within their organisation. It is what they are trained and have the mindset to do. Members who spoke with us pointed out that they ‘live and breathe’ with performance data and gone are the times when reporting was purely numerical and routine. Performance metrics are reviewed, re-designed and acted upon day in and out. It is clear from the survey result and focus groups we conducted with our members that we need to be better at promoting, talking and helping our members understand productivity and how they can help their organisations with it. From highlighting industry insights that will support benchmarking and promote best practices to inspiring a constructive discussion in the profession and proactively engaging with policy makers and getting them involved in resolving challenges and reducing barriers to productivity, CIMA is well-positioned to play an active role in setting the Productivity Agenda.

RECOMMENDATION 1:
CIMA needs to do more to promote the importance of Productivity

This will help members with how they track and interpret Productivity in their organisations, with an aim to strengthening their capability and credibility of effective and trusted management advisors, recognised as the authority in this field. To carry this out CIMA will commit further resources in research, member and advocacy interactions in 2022 and onwards.

RECOMMENDATION 2:
We recommend that members participate in member forums, organised by CIMA and use these opportunities to learn more from other members on how they are leading productivity measurement and improvement in their organisation and to use CIMA materials such as Re-imagining Performance Management research to improve performance and productivity in their organisation.

RECOMMENDATION 3:
Given how critical the issue of Productivity is, we recommend that members engage with it and proactively set the productivity agenda by initiating discussions and actions in their organisation to establish specific affordances, challenges and barriers. These will also highlight factors of productivity improvements, specific to and actionable in their organisation.
Macro-level productivity

There are different measures of productivity on a national level. Indicators, such as labour productivity are important, but also measurements such as Multi-factor Productivity (relating a change in output to several types of inputs) and Productivity Dispersion (efficiency across firms) are increasingly important to understand better what is happening with productivity and what is the impact of sectors that are less labour intensive. Labour, capital and technologies all factor into productivity and multi-factor productivity (also called total factor productivity or TFP), breaks down growth into the contribution from inputs into the production process. There is a direct relationship between productivity and living standard (as measured by GDP per capita) and in the U.K., its consistent rise since the start of the industrial revolution is shown on Chart 1 below.

Macroeconomic background

In the past decade, U.K. productivity growth has been slower than at any time since the Industrial Revolution. The Office for National Statistics has announced that the U.K. has the largest ‘productivity puzzle’, measured as the drop in productivity, post-2008 financial crash (15.6% in 2016, around double the average of 8.7% across the rest of the G7).

In addition, a 2018 report by McKinsey Global Institute showed that U.K.’s productivity slowdown was more comprehensive than that of France, Germany and Spain, and occurred across all regions, affecting 83% of sectors in the U.K. economy.

Chart 1: Decomposition of long-run U.K. GDG growth

Without an increase in productivity the Government’s plans to level up the economy and the priority to tackle inequality will not be realised. Productivity growth is important to individuals, as it can lead to increased wage growth and enhanced buying power, reducing inflationary pressures. A recent report from the Australian Productivity Commission confirms that wage growth, achieved in the last 120 years appears to be almost entirely due to labour productivity growth.27

At the same time, there has been a phenomenon that shows a slight decoupling of productivity growth and wage growth. Research, looking at productivity growth in the USA and the effect it had on wage growth concluded that the productivity gains have not been distributed equally and that has affected wage growth.28 This is backed up by figures from the OECD which shows that there has been productivity divergence between firms, and this means rising dispersion of labour incomes across firms.29 In other words, while wages and productivity are strongly linked, this does not mean the wage gains have been equally distributed across workers. Indeed, they have not been.30 Increasing income inequality may also be a factor underlying the productivity slowdown. Researchers who examine income observe that “talented individuals born in low- or middle-income countries are systematically less likely to become knowledge producers”.31 This ties in with the quality of management practices, ESG factors and well-being, which we will cover later in the report.

As for recent events in the U.K., post-Brexit, the U.K. has new freedoms that can allow it to better craft regulation and tax policy to suit the U.K.’s needs. However, it needs to increase its competitiveness, in order to succeed in new markets. Labour supply post-Brexit, potentially influenced by more restrictive immigration policies, may mean that companies reliant on immigration, will now need to increase productivity or risk facing serious issues.

However, the slowdown in productivity is not just a U.K. issue and since the 2008 financial crisis global productivity has slowed down. Figures from the World Bank show that since the 2007-2009 financial crash the world experienced the steepest, longest and broadest multi-year slowdown in labor productivity.32 To highlight this point, let’s mention that in the G-20 advanced economies, average total factor productivity (TFP) growth fell from 0.7 percent before the global financial crisis to 0.3 percent afterwards and in the G-20 emerging market economies, it declined from 1.8 percent to 0.6 percent.33

### Regional productivity

An essential component of disparities in a country’s regional income arises due to variation in regional productivity. In OECD countries the most productive region is, on average, twice as productive as the least productive region.34 In many countries, such as France

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26 [https://www.bls.gov/k12/productivity-101/content/why-is-productivity-important-to-individuals.htm](https://www.bls.gov/k12/productivity-101/content/why-is-productivity-important-to-individuals.htm)
28 [https://core.ac.uk/download/pdf/6592796.pdf](https://core.ac.uk/download/pdf/6592796.pdf)
and the United Kingdom, the capital region is where the highest regional labour productivity is generated. In France Île-de-France, which includes the city of Paris is the region with the highest labour productivity. To compare it with the U.K., let us mention that it manages to produce 54% above the U.K. average, followed by London, which generates 39% above the U.K. average productivity. The root cause of this lies in the economic benefits accruing to large cities, linked to the rise of knowledge-based activities. In general, a mix of internal and external factors influence the higher productivity of capital cities. Internal factors include management practices, the adoption of ICT and other innovative technologies, ownership and firm structure as well as trading behaviour. London, for example, features a relatively high proportion of firms that trade internationally, which can enhance firm-level productivity through increased economies of scale and integration into global supply chains. Exporting firms have, on average, levels of productivity around one-third higher than their non-exporting counterparts. External factors relate to producers’ wider operating environment. These are easily incentivised by government policies but can be difficult to change in the short term. Examples include local labour market conditions, transport connections, levels of consumer spending and agglomeration economies — that is, the proximity of high-skilled workers and businesses which is a prominent feature of the London economy and is thought to foster productivity through specialisation and knowledge spillovers. While the extent of agglomeration benefits (and costs) is disputed, there is empirical evidence that some productivity gains exist, especially in service sectors. It remains to be seen whether emerging remote working practices, reaching out to recruit geographically diverse talent will break this regional mold. A recent report from Microsoft, looking at hybrid work as the next disruption, argues that authenticity and flexibility will spur productivity and well-being, but also expresses concern that it may lead to shrinking networks, thus endangering innovations.

In other countries the reason behind regional productivity disparity has its roots in the history of these countries. In Germany, for example, the fall of the Berlin Wall in 1989 that led to the country’s unification, improved the living standards of the Eastern part of the country, although that does not mean the former East and West Germany are on an equal economic footing today. Five of the six states in the former East Germany — with the exception of the city-state of Berlin — had lower per-capita productivity in 2018 than the West German state with the lowest per-capita productivity, Schleswig-Holstein. The government’s report points to several possible factors for the worse economic conditions in East Germany, including the lack of major companies headquartered there. However, despite such disparities between its Eastern and Western parts, the country is considered an example of success in terms of levelling up. Per capita GDP of some parts of the U.K. is lower today than that the output now being achieved by what was formerly East Germany. This has

Per capita GDP of some parts of the U.K. is lower today than that the output now being achieved by what was formerly East Germany

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35 https://www.oecd-ilibrary.org/docserver/reg_cit_glance-2018-7-
36 https://www.ons.gov.uk/economy/nationalaccounts/UKsectoraccounts/compendium/economicreview/april2018/
regionalandsubregionalproductivitycomparisonsUKandselectedecountries2014
40 OECD (2019) Reducing regional disparities in productivity in the United Kingdom
42 https://www.microsoft.com/en-us/worklab/work-trend-index
been recognised as “astonishing” by Boris Johnson. It is to be emphasised that Germany has been investing steadily and consistently for three decades to level up between Western and Eastern Germany — long-term funding instead of one-off funds, as well as decentralisation of decision-making powers, are what’s at the core of Germany’s success story. Applying Germany’s strategy to England, where we have longstanding problems, unresolved by a highly centralised governance system. Trying to solve the local through the central will be difficult, if not impossible, because decision making is not brought down at the level, where issues can be better understood and solved.

Similarly, South Africa still suffers the consequences of Apartheid, which ended in 1994, and affected deeply the country’s productivity. In the late 1990s South Africa started investing in industrial policy, in order to recover from Apartheid through state interventions in urban areas. “Agglomeration economies — where benefits arise from a spatial concentration of economic activity — are a key determinant of regional productivity.” When it comes to such structural issues that governments need to address, productivity becomes a political prerogative, which can also be supported through the ESG movement, which we will review onwards.

But how to ensure that a greater portion of the workforce gravitates to higher productive firms and that less productive firms raise their productivity? There are a number of factors and considerations that affect productivity on a firm and national level, which we will review next.

**RECOMMENDATION 4:**
A key focus of the U.K. Government’s levelling up program must be on reducing the regional variations in productivity, while not hampering London and the South East’s existing productivity.

The U.K. government should report every year at the Budget on the level of regional productivity in the U.K. and whether it has seen an improvement and how it compares to the most productive regions of the U.K. This would mean government policies could be tracked to see if they are having an impact on levelling up the U.K. and improving productivity.

**RECOMMENDATION 5:**
U.K. and Regional Government to create productivity and skills hubs via further devolved powers.

The example of improving East German productivity shows that decentralised power was a key reason in helping improve productivity in that region. The U.K. for many decades has been on a path of more devolution via the devolved national parliaments and in more recent years more Metro and Regional Mayors. However, arguably even with this devolution the U.K. still has one of the most centralised systems of government in Europe.

If the U.K. government wants to level up the U.K. it needs to hand more powers to devolved mayors and regions including on areas around finance and the economy. Without these powers the devolved Mayors can play little more than a coordinating role in helping to improve productivity in their regions. Via these further devolved powers regional productivity hubs and skills clusters should look to be created. Later in this report we explain more about our thinking on skills clusters.

**RECOMMENDATION 6:**
The U.K. Government and Devolved Governments need to devolve education and skills policy to the regions and Mayoral systems within them.

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46 [https://www.wider.unu.edu/publication/spatial-dynamics-firm-productivity-south-africa](https://www.wider.unu.edu/publication/spatial-dynamics-firm-productivity-south-africa)
One area where the government could devolve more powers to the regions is on education and skills policy. In the U.K. we have a very centralised system of education. What this chapter showed us was that to improve regional productivity it is important to have highly skilled workers in the region.

Each region will have different skills needs depending on the sectors and industries that operate within them. To help companies in these regions plug skills gaps and have the skilled workforce they need for the future to grow, expand and become more productive the government should decentralise some skills and education policy to allow for regional government there to better co-ordinate with business on the skills pipeline they need for the future.

We expand on this point further in the report on how this model could work and look like.

**RECOMMENDATION 7:**
The Government should work with business to encourage more companies to the headquarters outside of London.

It is clear from above that one of the reasons why regions in East Germany had lower productivity than regions in West Germany was the lack of major companies headquartered there.

Of current FTSE 350 companies over 70% are located in London and the South East. Only 18 are in Scotland, one in Wales and only 34 outside of London and the South East in the northern and midland regions of England. There are almost as many based in Ireland, Jersey and outside of the U.K. when counted together as based in the northern regions of England.

The government should be doing all it can to encourage more FTSE 100 and FTSE 350 firms to headquarter outside of London. While it is true this will not be enough in itself to improve regional productivity disparities in the U.K. it will help to start to drive change and make other regions of the U.K. more appealing to invest and do business within.

Over 70% of FTSE 350 are located in London and the South East.
Trade, competition and productivity

When attempting to calculate the productivity effect of Brexit, in the context of reduced trade, the Office of Budget Responsibility in the U.K. concluded that it is difficult to capture the link between trade, knowledge transfer and innovation and measure dependencies in one specific mechanism.\(^{47}\) Despite that and the lack of firm-level data, coupled with measurement challenges around productivity overall, it is undoubted that there are some clear links between international trade and productivity growth\(^{48}\), which is evidenced indirectly. For example, research by the Office for National Statistics found that levels of labour productivity are considerably higher for businesses that declare international trade, compared to other businesses. The research found that on a median basis, firms that both export and import had labour productivity of around £40,000 output per annum per worker compared to around £22,000 output per worker for firms that did not have any trade declarations as measured.\(^{49}\)

Evidence from the European Central Bank also supports the positive and significant relationship between productivity and international trade\(^{50}\) and the same notion has led the Peterson Institute for International Economics in the United States to estimate GDP lost from stagnation in U.S. two-way trade between 2011 and 2014.\(^{51}\)

The reason for this positive correlation is that increased international trade of goods and services opens up economies to both innovations and efficiencies. The enhanced competition simply means that firms have to be successful when competing with both domestic and global players. Increased trade and firms operating at a global level means that they are open to new ideas, ways of doing business and are working towards improving their collective capabilities. A report from the International Growth Centre found growing evidence that there is learning, arising from exporting.\(^{52}\)

Thus, trade liberalisation produces gains by causing inefficient firms to exit the market and allowing productive firms to grow.\(^{53}\) One way, in which growth is achieved is through improved management practices within the firms. Better managed firms appear to be rewarded more quickly with greater market share.\(^{54}\) Competitive shocks for firms are often bad news for managers, but otherwise, force them to make changes that improve their team’s and firm’s performance.\(^{55}\) In other words, competition drives better management of firms and that, in turn, helps with economic benefits such as productivity.

Removing anti-competitive measures and regulations has been proved to increase productivity by over 1%, leading to productivity at least 10% higher in the long run.\(^{56}\) In their 2015 report on competition and productivity, the U.K. Competition and Market Authority pointed to a study of 154 countries using data from 1960-2005, demonstrating that competition law had a positive effect on GDP and economic growth after 10 years of operation.\(^{57}\) This view is corroborated by the Australia Productivity Commission that found the introduction of National Competition Policy added around 2.5% to GDP.\(^{58}\) These findings are backed up by a study into U.S. energy markets, which found that private generators facing competition had 20% higher productivity than publicly-owned utilities facing no competition and 5% higher than privately owned generators facing no competition.\(^{59}\) Research by Canada’s Public Policy Forum also confirms that the private sector competition drives

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\(^{47}\) [https://obr.uk/box/the-effect-of-trade-intensity-on-productivity/](https://obr.uk/box/the-effect-of-trade-intensity-on-productivity/)


Tackling the U.K. productivity puzzle

Removing anti-competitive measures and regulations has been proved to increase productivity by over 1%, leading to productivity at least 10% higher in the long run.\(^\text{56}\)

Productivity.\(^\text{60}\) In fact, weakened competition has been highlighted as a factor that might have contributed to the productivity slowdown in the U.S. since 2004.\(^\text{61}\) This has been caused by rising concentration across firms and in their ownership, relaxed antitrust enforcement, increased mergers and acquisitions, and other restraints on competition, including increases in occupational licensing by states, the growth of land-use restrictions, a greater scope of intellectual property law, and increases in lobbying and political rent-seeking.\(^\text{62}\) As mentioned, competition is what forces the least productive firms to cease operations, while more productive firms survive and increase their market share. Such reallocation of resources from the least efficient and productive firms to their performing competitors helps enhance productivity.\(^\text{63}\) The New Zealand Productivity Commission supports this finding saying that most industries they studied show positive contributions from firm exit.\(^\text{64}\)

On the other hand, inefficient firms that manage to survive are known as ‘zombie firms’. Following on from the 2008 financial crash many economies around the world have seen a rise in zombie firms, while productivity growth has slowed. Yet zombie firms are not a new experience. Evidence from Japan in the 1990s showed that zombie firms survived persistently in the market, which has led to lower productivity. A number of studies look at the effects of zombie firms on economic growth and productivity. One OECD study showed that had zombie firm share not risen from pre-crisis levels in Spain and Italy the capital reallocation would have increased productivity by between 0.7% and 1% and in other OECD countries reducing zombies to their lowest levels would have added 0.5% to productivity growth.\(^\text{65}\)

Competition can enhance productivity by also driving innovation and forcing firms to invest in new technologies, in order to keep up with or surpass their peers. New ways of doing business and the use of new equipment may mean that firms find more productive and efficient ways to operate. The New Zealand Productivity Commission found that competition can lead to growth in frontier firms increasing their technology and thus innovation can then spread from leading to lagging firms. It also found that investing or

\(^{60}\) Public Sector Productivity 01-07-15_1.pdf (ppforum.ca)


adopting new technology can be costly for firms and those facing less competition may put off investment decisions, thus holding back growth.\textsuperscript{67}

At the same time, in the US, waning dynamism or reduced responsiveness to productivity gains at the firm level has been considered as a possible root cause of the productivity slowdown. A major consideration is that businesses that have been prompting innovations are having difficulties scaling up and hiring more employees. Thus, their innovations are not translating into solid productivity gains on an aggregate basis. In other words, despite the slowdown economy-wide, many firms are still realising strong productivity gains, being at the “productivity frontier” during the slowdown period since the early 2000s. But these productivity leaders in their respective industries are not driving productivity in other firms. This also means that a larger gap exists between leading firms and laggars.\textsuperscript{68}

\textbf{RECOMMENDATION 8:} More should be done to allow ‘Zombie Firms’ to leave the market

Zombie firms can really drive down productive growth and harm their competitors too as evidence from around the world shows. This means that not only is the Zombie firm not being productive in itself, but it is also taking potential productivity gains and enhancements from more productive firms. This has a knock-on effect to the wider economy as less productivity is released into the marketplace and harms national productivity.

Firms failing should not be seen as bad in itself. Firms failing is a part of the capitalist economic system and allows for a reallocation of resources.

The U.K. government should conduct a review of U.K. Insolvency law looking at international competitors for best practice. The U.K. government should make it easier for zombie firms to exit the marketplace to free up wasted productivity.

\textbf{RECOMMENDATION 9:} Competition as a result of Trade Deals and Trade Liberalisation should not be seen as a bad thing


\textsuperscript{67} \url{https://www.productivity.govt.nz/assets/Documents/competition-in-new-zealand/92bedbc7ed/Cut-to-the-chase.pdf}

Competition has a positive effect on productivity and increased trade with other nations clearly drives firms to become more productive and not just keep up with domestic peers, but international ones too. There is a need for support in the initial phase when domestic firms are opened up through trade liberalisation to international competition, however this should only be to allow them to specialise and to weather the initial shock as the long-term benefits of more global trade is very clear in terms of productivity gains.

When trade deals are conducted more should be done to promote the wider economic and societal benefits of the trade deal including productivity gains.

**RECOMMENDATION 10:**
U.K. Trade Deals should seek to liberalise all areas of the economy

As the U.K. looks to complete more trade deals post-Brexit the U.K. should use this as an opportunity to champion trade liberalisation in all areas of the economy including in services, the financial sector and professional services. These are areas that have traditionally not been part of trade deals and are strong parts of the U.K. economy. Opening up more international markets to these sectors will help them grow and expand and drive-up productivity in the U.K.

**RECOMMENDATION 11:**
The Competition and Markets Authority should conduct a review to ensure the U.K. remains the most competitive place to do business.

Greater competition and competitive pressures on firms clearly drive greater performance and productivity as firms are forced to keep up and perform better than their peers. In order for the U.K. to continue to benefit from strong business competition the U.K. Competition and Markets Authority should conduct five-year reviews into the state of U.K. competition across all sectors and set out proposals for how competitive business practices and policy can be improved in the U.K. This review should look at our international competitors and compare and contrast U.K. business competition to them. This review should look specifically through the lens of increasing productivity in the U.K. as that is what should be the aim of good competition policy.

**Information and communication technologies/artificial intelligence**

Digitisation, as a general-purpose technology has the potential to leverage inventions across the economy, by structuring data and instilling knowledge creation and evidence-based decisions. ICT is widely recognised as a leading driver of innovation and productivity. According to the Organisation for Economic Co-operation and Development (OECD), ICT investments accounted for over 50% of the labour productivity growth in Canada between 2000 and 2009.69 Having the capacity to deliver service in a remote fashion, by adopting new digital technologies allows firms to experiment with new business models, which may be more profitable, and that may bring aggregate benefits for productivity performance, if widely adopted.70 Some71 claim that technological progress is the most important single driver of productivity growth.

‘New technologies’ have been singled out by both members surveyed and participants in our focus groups as the most impactful factor, when it comes to productivity. Our informants also discussed the need to use information wisely and flexibly — designing useful reports both periodically and ad hoc, to respond to the fluidity of the day-to-day business management. They spoke of data analytics applications as a critically important tool, routinely used by their teams. In our survey of members nearly 20% of all responses provided pointed at technologies as having had the most positive impact on their organisation’s productivity in the last two years. The next nearest positive impact was hybrid working on just over 11% of responses given.

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Measurement challenge and intangibles

U.K.’s position in artificial intelligence (AI) and ICT developments like blockchain, robotics, and cyber-security is considered strong and U.K. consumers are early adopters of new digital technologies. This is demonstrated by the fact that the U.K. market is one of the biggest for e-commerce globally, with the highest per capita online spent. However, measuring productivity gains, triggered by digitalisation is challenging. This is because existing statistical data gathering does not capture the performance and value of intangible assets and this makes productivity efficiencies caused by digitalisation invisible, particularly for information and communication technology equipment and software capital that have become an increasingly important factor of production. The advent of novel consumer services, often provided free of charge, has contributed to productivity in ways we cannot capture. In addition, while measuring the output of physical goods tends to be more straightforward, measuring the output of services like education or healthcare is harder and many economies are now dominated by service provision as opposed to manufacturing.

Intangible assets may enhance the market power of some firms. This is thought to occur through intangibles creating greater economies of scale — many intangibles have low or no marginal cost of use, so early adopters can more easily squeeze out incumbents leading to slower long-run productivity growth, because of reduced competition and business dynamism on the market.

Overall, intangible investments, resources and products present problems when measuring their impact on productivity. For example, it is not easy to attribute value on search engines, which while used by everyone are not directly priced. From here, unmeasured growth in intangibles could mean that a larger portion of economic growth is attributable to input growth than was previously thought. In addition, the subjective nature of measuring productivity in customer-supplier relationships, difficulty in attributing value to intangible investments, resources, and products, and differences in tracking productivity on a global level are challenges that organisations face.

What challenges, if any, does your organisation face in tracking productivity?

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72 D. Coyle (June 2021) The idea of productivity The Productivity Institute Scoping Paper No.001.
nature of customer-supplier relationships complicates measuring the services sector and its productivity. Thinking of a doctor treating a patient, for example, it is clear that the patient’s attitude and behaviour are crucial in how treatment works and thus how productive the output is considered. There are also issues with measuring changes in the quality of inputs, as well as outputs. Unlike unmeasured quality improvements in output (which would lead to underestimation of productivity growth), unmeasured quality improvement of inputs leads to overestimation of productivity growth.

Indeed, when we surveyed our members over 50% had difficulty and challenges with measuring productivity due to either difficulty in attributing value to intangible assets or difficulty in measuring productivity changes due to the quality of inputs and outputs.

As can be seen by the graph, many of our members face challenges in measuring productivity due to intangible information and assets and how the nature of many businesses has changed due to technology.

**RECOMMENDATION 12:**
Further research needed on intangible assets and relation to productivity. We propose this is done by the New Productivity Commission we are proposing.

**RECOMMENDATION 13:**
CIMA to provide more support, guidance and toolkits to members to help measure productivity better and to take account for changing nature of work and more intangible assets.

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**Improve productivity**

The economic boom in the U.S., in the period 1995 to 2004, was accompanied by capital intensity growth, particularly when it comes to information capital and software. This period recorded high labour productivity growth as well. The potential of productivity gains achieved through digitalisation, automation and AI deployment have been considered by organisations and it is hoped that the effects of COVID-19 will force adoption, as many organisations needed to adapt and experiment in the crisis, which has intensified digitisation and optimisation.

Global research by McKinsey (2021a) estimates potential labour productivity growth at an average of 1% annually to 2024, leading to additional GDP per capita. The increase has been projected based on productivity drivers like investments, mergers and acquisitions (M&A) and research and development (R&D) spending and automation. Expectations are higher towards some sectors like ICT, Retail, Construction and Healthcare, where telemicine, e-commerce, increased demand for and confidence in online services and advertising, warehouse optimisation and refined analytics are expected to surpass the average of 1% projected growth in productivity. Those efficiencies will however only be possible if demand is robust and innovations spread widely, not only in large corporations, called by some ‘superstars’. These are the firms that have internalised and leveraged on technologies and new operating models, even monopolised certain segments by achieving immense productivity. It is claimed however that the superstars have slowed down their productivity over time due to the lack of competition in their markets.

Interestingly, some economists, such as Robert Gordon, believe that current technological advances are not strong enough to drive significant productivity growth, compared to innovations, like

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78 McKinsey 2020a
the use of electricity, that have spurred the Industrial Revolution. Some researchers claim that it is not a lack of productivity-enhancing technologies that are constraining productivity growth, but rather lack of incentives for change, including institutional rigidity.81

In the US, the technology-enabled productivity gains of the late 1990s were observed only in sectors that ensured supporting business process innovations, often, to respond to competitive pressure. It is, therefore, believed that pressure coming from the industry or internally encourages companies to embrace and fully exploit technology-enabled improvements. In 2017, McKinsey Global Institute found that productivity-enhancing uses of IT share three characteristics: they serve to transform business processes, they are implemented, so that capabilities are built over time and they combine managerial with technical novelty.83

**RECOMMENDATION 14:**
The Government should consider granting tax advantages to large companies which make their platforms and networks available to companies in their supplier network — U.K. startups and SMEs.

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81 See for example Erik Brynjolfsson and Andrew McAfee, The second machine age: Work, progress, and prosperity in a time of brilliant technologies, Norton, 2014; and Joel Mokyr, “The next age of invention: Technology’s future is brighter than pessimists allow,” City Journal, winter 2014.


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The Government should use their procurement role to encourage large companies to open up their platforms and networks to startups, SMEs and their suppliers.

**RECOMMENDATION 15:**
The Government has committed to increasing its spending on R&D and businesses will be making decisions based on this commitment, The Government must not row back on its pledge.

The Government must provide greater certainty to businesses to support investment decisions and can do this by committing to reduce taxation on investment through making the super deduction permanent and ruling out further increases in business taxation.

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It has been estimated that highly productive organisations have spent about 10 times as much on restructuring and organisational change as on new information and communications technologies.84
While new technologies are an important lever, upskilling and coordination among employees to ensure that these are used to springboard productivity efficiencies is no less important. It has been estimated that highly productive organisations have spent about 10 times as much on restructuring and organisational change as on new information and communications technologies. Adoption costs are incurred early on and there is a lag of time before benefits in the form of increased productivity are accrued. Making a parallel with the Industrial Revolution, some believe that permanent productivity gains, earned post-pandemic form hybrid working will take time to crystallise, as employers and workers need to reshape management and coordination processes. The quality of management processes is therefore critical for labour productivity, with higher quality practices existing in larger firms, foreign-owned firms, non-family-owned firms and the service sector. According to international comparisons of management practices and performance, the U.S., Germany, Sweden, Japan and Canada score higher than the U.K., as indicated below.

The assessment is based on how well firms monitor their progress and continuous improvement, whether they set and track the right targets and outcomes and how they are incentivising employees. Re-organisations and changes in management practices are also associated with significant improvement in performance — increases of productivity of more than 10% within the first six months as a direct effect from improvements in monitoring, targets and incentives.

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<tr>
<th>Country</th>
<th>Management Practice Score</th>
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<td>U.S.</td>
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Countries not statistically significantly different from Canada:


RECOMMENDATION 16: Welcome the government’s help to grow management schemes for SMEs

The U.K. Chancellor, Rishi Sunak MP, in 2021 announced the creation of the Help to Grow Management scheme. This scheme provides SME leaders in the U.K. with a 12-week intensive programme to help improve productivity. The scheme says it will help 30,000 SMEs in the U.K. 90

In the U.K. in 2020, there were 6 million SMEs. 91 This means only 0.5% of SMEs are being supported with this scheme. Given that 99% of U.K. businesses are SMEs if productivity is going to improve than this scheme needs to be scaled up to help more SMEs in the U.K.

RECOMMENDATION 17: Business across the U.K. needs to do more to look at international best practice on management skills and culture

Business across the U.K. needs to do more to improve management practices and skills and make sure we are keeping up with international best practice in this space. All business leaders should make this a priority within their organisation when they look to increase and improve productivity.

Productivity and financialisation

The pressure to constantly increase shareholder wealth and distributions affects productivity by way of investments foregone to afford greater distributions to shareholders. For the same short-term objective, labour costs may be cut at the expense of optimisations in competitiveness and productivity. 92 Alternatively, non-financial firms may be investing in financial assets, instead of making productive investments, directly related to new initiatives or technologies relevant to their business. 93

Importantly, some link inadequate productivity on a national level with the poor productivity of large incumbents. 94 It is said that large entities have accumulated unproductive inertia, and also power to block the development of innovative, but smaller players. They also use financial engineering to maintain high shareholders distributions, which also positions them favorably among capital providers. 95 Such culture, combined with inadequate management skills and practices 96, turns detrimental to successfully realising new productivity initiatives.

Education levels of both workers and managers correlate with high management scores, as implementing many of the best management practices is easier when the workforce and leaders are more knowledgeable. 97 Despite the fact that many organisations regularly sponsor leadership trainings and talent development programs, inadequate management skills and suboptimal practices have been reported by CIMA members as one of the top three barriers

to productivity. As revealed by the diagram below, the top three blockages to productivity, identified by members surveyed relate to lack of skills both within organisations and nationally.

In addition, ‘accumulation of knowledge, sharing of ideas and know-how’ has been highly ranked as a contributor to improved productivity, along with ‘hybrid working’ and ‘new technologies’. From here, when it comes to human capital, achieving collaboration, co-creation, flexibility and empowerment are seen as instruments that will incentivise productivity and impart best practices by diffusing innovations.

**RECOMMENDATION 18:**
Business across the U.K. needs to do more to look at international best practice on management skills and culture

Business across the U.K. needs to do more to improve management practices and skills and make sure we are keeping up with international best practice in this space. All business leaders should make this a priority within their organisation when they look to increase and improve productivity.
Knowledge capital

Knowledge or the accumulation and sharing of ideas and know-how is instrumental to productivity growth. Research ideas, which are commercialised by the tools of entrepreneurship, finance, competition and knowledge transfer are reshaped by firms, whose processes and products ensure market interaction and flow of knowledge in society. The common denominator here is the people — they generate, share, absorb and action ideas and in their various roles of inventors, managers, workers and consumers facilitate diffusion. New ideas require coordination of individuals, teams and institutions. Understanding knowledge capital will bring another nuance to understanding productivity performance.98

Research and development

The social return measured by productivity gain to private and public investment in research is high. It can be demonstrated that there is at least a fourfold long-run average return to every R&D dollar spent in the US.99 Direct linkage between research and productivity has also been proved by evidencing that expanding the number of universities is positively associated with future per capita GDP growth in their region. There is also evidence of spillover effects to neighbouring regions.100

Figure 2: Total R&D expenditure as a share of GDP, G7 countries102


It can be demonstrated that there is at least a fourfold long-run average return to every R&D dollar spent in the U.S.99
In terms of improving the social return in the U.K., it has to be noted that, for years, the U.K. has invested considerably less in R&D than other G7 countries (except Italy and for some periods Canada), and less than the OECD average, as a share of GDP (Figure 2). The Government has recently pledged that the figure should increase to 2.4% by 2027.101

In addition to the national average research expenditure share being too low, the geographic imbalance and the remoteness of basic research from business R&D spending both contribute to national research spending having an impact on productivity and growth that is less than it could otherwise be. While the U.K. universities produce highly cited publications102, they are considered to be relatively weaker at translational research, which is closer to commercialisation, compared to basic research.103 This has been explained by the lack of cohesion and cultural differences between universities and industry, the requirements of academic research processes, and institutional barriers to transdisciplinary collaboration among researchers.105 One of the questions asked is why British businesses invest relatively little in research by international standards.

**RECOMMENDATION 19:**
Welcome the recent announcements by HM Treasury on R&D, but the U.K. government needs to do more to stop the regional imbalance of R&D spending and encourage more spending on the Development part of R&D

We welcome HM Treasury commitment to increasing R&D spending to £22 billion by 2026–27 and that this expenditure is in addition to spending on R&D Tax Reliefs and greater investment on R&D in the U.K. will be the priority. We also welcome that these announcements will put the U.K. ahead of many in the OECD in terms of the percentage of GDP we spend on R&D.

While the U.K. universities produce highly cited publications,102 they are considered to be relatively weaker at translational research, which is closer to commercialisation, compared to basic research.103

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101 BEIS 2019
However, if any budget surplus should become available in the next few years HM Treasury should prioritise bringing the £22 billion investment in R&D forward. HM Treasury should also report on how much R&D is being spent here in the U.K. by way of direct investment and tax reliefs and wherein the U.K. it is being spent. A focus should be made to encourage more spending on R&D in the U.K. regions.

In a speech by the Chief Economist of the Bank of England in 2018 the development side of U.K. R&D was identified as a particular weakness. In the speech he said:

‘Typically, we think of ‘Research and Development’ (R&D) as a rhyming couplet. In the U.K.’s case, the R and the D do not seem to rhyme. The U.K. does R well, as a world-leading innovation hub. But it does D poorly, where the D refers not just to development but the diffusion and dissemination of innovation ...’.106

The U.K. government should ensure that the U.K. improves on the development side of R&D and at each budget there should be a report on the percentage of R&D spend both directly and via tax reliefs that goes on research and that goes on development.

**RECOMMENDATION 20:**
U.K. Businesses need to take more advantage of R&D and provide more research in line with their OECD peers.

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Skills and productivity

There is a large body of literature discussing the direct and indirect relationship between skills and productivity growth. Skills increase individual productivity, collective business performance and facilitate entrepreneurial activities, leading to innovations, which in turn boost productivity. A holistic approach to understanding this link is presented in Figure 1\textsuperscript{107}, where the drivers of productivity are highlighted.

Studies that link skills to productivity involve comparisons of qualifications alongside measures of output and productivity. They conclude that the productivity gap between the U.K. and other countries is at least partially accounted for by differences in the distribution of skills.\textsuperscript{109}

The measurement of productivity dispersion in selected Australian industries found that amongst the six industries reviewed Manufacturing and Professional, Scientific and Technical Services industries exhibit the smallest labour productivity gap between businesses at the top and bottom quartiles.\textsuperscript{110} This suggests a link between higher skills and higher performing productive industries as these industries tend to have a skilled workforce.

The link between vocational training and prosperity is sound: there is compelling evidence that completing a vocational education and training (VET) typically raises productivity and labour income and can have wider benefits.\textsuperscript{111}

Overall, the U.K. has a relatively good performance in skill levels and educational attainment, compared to EU and OECD countries. The two significant exceptions are adult participation in lifelong learning, and young

Figure 1: The direct and indirect linkages between skills, enterprise and innovation with productivity and/or regional performance\textsuperscript{108}

\footnotesize{\textsuperscript{107} Gambin, Green and Hogarth, 2009, EXPLORING THE LINKS BETWEEN SKILLS AND PRODUCTIVITY
\textsuperscript{108} Gambin, Green and Hogarth, 2009, EXPLORING THE LINKS BETWEEN SKILLS AND PRODUCTIVITY
\textsuperscript{109} Gambin, Green and Hogarth, 2009, EXPLORING THE LINKS BETWEEN SKILLS AND PRODUCTIVITY
U.K.’s performance is below the OECD average up until the ages of 30 (literacy) and 35 (for numeracy). The relative size of the low-skill group is three times larger in England than in the top-performing countries, like Japan and Finland.

adult literacy and numeracy skills. On the latter, U.K.’s performance is below the OECD average up until the ages of 30 (literacy) and 35 (for numeracy). The relative size of the low-skill group is three times larger in England than in the top-performing countries, like Japan and Finland.

Other sources point out that U.K. is underperforming in terms of job-related training and low- and middle-level skills, both of which have deteriorated over time. There are also significant regional disparities in adult skills and training, where variations are among the most significant for any OECD country.

Linking skills needed by an employer and improved productivity, a Canadian study of workplace training tracked over 200 participants working for 18 employers undertaking training in ‘essential skills’, including oral communications, problem-solving, digital technology and working with others. Participants’ literacy, numeracy and other skills improved, based on their own and their employers’ assessments, with the employers noting improvements in their productivity, error rates, morale and social networks.

The U.K. has comparatively good levels of higher education attainment, with 52% of 25-34-year-olds holding a university degree (and 37.6% of 55-64-year-olds), the fourth largest level in the OECD, after Korea, Canada, Japan, and Lithuania. However, evidence also shows that only a third of jobs in England and Wales require a higher education qualification, and around 30% of workers in England have a qualification that is greater than the level required for their job, one of the highest figures for the OECD, second only to Japan. This failure to transform qualifications to firm or government productivity leaves many overqualified with unused potential.

RECOMMENDATION 21: Welcome the creation of the Multiply programme to help improve numeracy skills across the U.K. and the £560 million investment by HM Treasury. A similar scheme for literacy and soft skills needs to be introduced too.

Turning skills into productivity

Most of the research concerns the supply side of skills or the projected pipeline of talent. The demand side — prioritising growth sectors and skills needed to leverage these in the context of broader industry

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112 Ballas et al., 2012
113 Kuczera et al., 2016
114 Abreu, 2018, PIN 08, Evidence Review Skills and Productivity
115 Palameta et al. 2013
118 OECD, 2017
119 OECD, 2013
120 Rincón Aznar et al., 2015
and global changes has been neglected. This reduces opportunities for evidenced-based decision-making by business leaders and policymakers.

From a policy point of view, the practice of skills ecosystems, applied in Australia has been highlighted as a step in the right direction. “Skills ecosystem” is a regional or sectoral social formation, in which human capability is developed and deployed for productive purposes and policy interventions address both the supply and demand side, thus affecting firm productivity, improving job satisfaction, and offering incentives for innovation and investments. The practice recognises the importance of the interaction between skills and other drivers of productivity. It addressed both supply and demand determinants of skills shortages and aims at improving outcomes for both individuals and businesses, optimising performance to improve workplace conditions and strategies, as well as improving the efficiency of the training provision. The approach has been applied in Scotland and there is scope for disseminating results and analysing its feasibility at a regional level in the U.K.

While the relationship between qualifications and training received and productivity is beyond doubt, there is clear need to narrow the existing gaps in the measurement of training, work experience, adult skill levels, self-employed workers and how non-cognitive (softer skills) affect productivity. The Germans speak not of a free market economy but a social market economy and the strength of the economy is based on a Mittelstand of German SMEs supported by a local banking system and an education system which values apprenticeships and technical education. The German apprenticeship system is owned by its stakeholders and reform must be negotiated and agreed upon by all parties and is largely funded by employers and not the Government. FE Week describes how “German apprenticeships aim to create a broad occupational identity, contain an element of enterprise education (equipping people to become self-employed or to set up their own business one day), have a healthy chunk of general education, and are normally set at the equivalent of our level 3.”

The U.K. Government should consider how we can integrate U.K. small companies into the supply chains of multinationals more effectively and give them access to those cross-selling platforms. Singapore has started some initiatives on this with large tech companies such as HPE. The Singaporean Economic Development Board is empowered to negotiate with companies and agree to deals. In 2017, the Singaporean Government also set up Startup SG to showcase Singapore's vibrant startup ecosystem both locally and overseas. In addition, the P-Tech initiative led by IBM includes skills mapping and linking local employers with schools and upskilling people in disadvantaged areas and has been deployed in Singapore.

This recommendation is strongly linked to Recommendation 3 made earlier in this report. The U.K. should learn the lessons from Germany and Singapore who have in different ways created skills

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**RECOMMENDATION 22:**
Create Skills Clusters Across the U.K.

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122 John Buchanan, Pauline Anderson and Gail Power, 2016, Chapter 21: Skill Ecosystems
123 Abreu, 2018, PIN 08, Evidence Review Skills and Productivity

... evidence also shows that only a third of jobs in England and Wales require a higher education qualification, and around 30% of workers in England have a qualification that is greater than the level required for their job, one of the highest figures for the OECD, second only to Japan
clusters in their economies and these help promote and drive productivity. One clear way skills clusters can be created is by involving local businesses and employers more in education and regionalisation education and skills policy more to help ensure the U.K. economy has the skills it needs for the future.

**RECOMMENDATION 23:**
Higher-Level Apprenticeships Need to be Available Across All of the U.K.

In our focus groups the issue of apprenticeships was raised and some highlighted that Level 7 apprenticeships are not available across the whole of the U.K. and the different schemes across the U.K. made it harder for businesses who are pan-U.K. to operate and be involved in them.

The devolved administrations should work with the Department for Education and the Institute of Apprenticeships to ensure some uniformity across the U.K. for apprenticeships to make it easier for businesses to engage within them and for more students to study apprenticeships. Level 7 apprenticeships should be made available across the U.K.

**RECOMMENDATION 24:**
Improved skills mapping across the U.K. needed

The U.K. government should coordinate and work with businesses across the U.K., business groups, the education sector and devolved Mayors to better coordinate and map the skills needed across the U.K. and for businesses in their region. This mapping should be an ongoing project so it identifies skills needed now and, in the future, and then government education policies can be shifted to give employers the workforce skills they need.

This should be focused on providing employers with the skills they need in different regions and this could fall under the umbrella of a Productivity Commission which is described below.

**RECOMMENDATION 25:**
The U.K. Government has opted for a points-based immigration system that seeks to fill skills gaps within the U.K. economy. However, it should consider where the solution in each case is to substitute labour for technology and how immigration contributes to U.K. productivity. Put simply higher low skill immigration reduces U.K. average productivity but increased high skill immigration increases the U.K. average.

**RECOMMENDATION 26:**
Mandated time off for training

The employee would be given the right to a specified period of time for training. The timing and duration of the training would need to be agreed with the employer. The U.K. Government could give companies tax advantages for providing this. Training would need to be conducted with an accredited provider to qualify.

**RECOMMENDATION 27:**
Rebuttable right to retrain

Introducing a rebuttable right to retrain would encourage U.K. citizens to raise training issues with their employer more easily and create a bias towards more training and skills development and not less. Similar schemes work with respect to flexible working. The employer would have to demonstrate that they handled the request in a reasonable manner. Where there was a business need to refuse the training they could do so.
The need for a Productivity Commission in the U.K.

Australia, New Zealand, and South Africa have all struggled with productivity in years gone by and all have created and established Productivity Commissions to help their government and industries improve productivity.

Below we provide a brief history and purpose of each of these commissions.

**Australia Productivity Commission**


The purpose of the Commission is an advisory body that contributes by providing quality, independent advice and information to government on economic performance and community well-being.

The Commission has four main outputs: Public inquiries and research studies requested by the government; Performance monitoring and benchmarking and other services to government bodies; Self-initiated research and annual reporting on productivity, industry assistance and regulation; Competitive neutrality complaints.

It is argued that the Productivity Commission has helped Australia suffer a less severe productivity slowdown compared to other OECD countries since the financial crash due to its constant tracking of performance across the economy and sectors and research to help inform public policy. Australia has achieved 29 years of uninterrupted growth prior to COVID-19 and the Productivity Commission with its lens firmly on productivity helped achieve that.

Each year the Australian Productivity Commission produced a report that tracks Productivity across Australia and its sectors.

**New Zealand Productivity Commission** (https://www.productivity.govt.nz/about-us/)

In 2010 the New Zealand government passed the New Zealand Productivity Commission Act which created the New Zealand Productivity Commission.

The principal purpose of the Commission is to provide advice to the Government on improving productivity in a way that is directed to supporting the overall well-being of New Zealanders, having regard to a wide range of communities of interest and population groups in New Zealand society.

Their vision is ‘Productivity growth for maximum well-being’. The Commissions three main areas of work is to undertake in-depth research into inquires on topics referred to them by the government; carry out productivity related research that assists improvement in productivity over time; and promote understanding of productivity issues.

**South Africa Productivity Commission**

The South African Productivity Commission (Productivity SA) was established in 2014. The Commission promotes a culture of increased productivity in workplaces; develops productivity competencies in workforces; facilitates and evaluates productivity improvements and their effects on market competitiveness; maintains and publicises a database of Productivity and Competitiveness systems and undertakes in-depth productivity-related research.

Since its creation it has had a number of successes. In the last year, 25 companies facing economic distress were supported from July 2020 to March 2021 and the interventions assisted in the preservation of 3 030 jobs. Part of the interventions also included establishing Workplace /Future forums (committee comprising on management and workers), training and capacitating 96 of their members on productivity improvement solutions. (Productivity South Africa, Annual Report 2020/2021 https://cmsignition.cc.za/download/files_1268/AnnualReport2020-21Final.pdf)
What can a U.K. Productivity Commission do and how it could operate?

A productivity Commission set up to similar models above could help the U.K. to track, monitor and improve on its productivity performance.

A U.K. Productivity Commission should have the ultimate aim of improving productivity in every region of the U.K.; making sure that the U.K. is leading the OECD for productivity improvement in future, and to make sure that wider society and citizens feel the benefit of improved productivity. Four areas of work should help a Commission achieve this:

1. To improve productivity reporting and measurement across the U.K., at a business level and a sector level. If something does not get measured then often no action is taken on it. In order for policymakers, business leaders and wider society to better understand productivity measurement and tracking in the U.K. needs to improve and this should be the role of a Commission. The Commission should produce an annual state of the nation report on productivity

2. Research — The Commission should research the issues in U.K. productivity and horizon scan on future issues too to inform policy makers and decision makers across all areas of government and business.

3. Promote Productivity issues, guidance, research and information across both the private and public sectors and wider society. The Commission can act as a hub of information and best thinking on productivity and should be used by business leaders and policymakers alike to inform their strategies to improve productivity.

4. The committee should be given a mandate to close the productivity gap between London and the South-East and the rest of the U.K. by a specified percentage by a particular point, for example by half by 2032. It should then be given the powers to recommend policies to meet this target, to monitor progress and to score Government progress.

This new Commission should be set up similarly to the Bank of England or Office of Budget Responsibility (OBR) with its being independent and having the ability to sound the alarm independent of government on issues around productivity.

The Commission should be used as a tool to inform policy thinking on productivity matters and as part of its remit it should look at public sector productivity too given that the state now represents its largest sustained share of GDP since the 1970s, at 41.6%.126

In Australia they have the Business Longitudinal Analysis Data Environment (BLADE) which is a financial census of almost all Australian businesses spanning 2001-02 to 2018-19. This has helped to measure productivity across a range of firms and sectors in Australia and has thus helped inform policies and actions to improve productivity. This shows that countries having a central data point on firm level economic indicators such as productivity is crucial if productivity is to be better measured and understood at a national level.

This model could be applied in the U.K. with the Productivity Commission having the task of researching, compiling and reporting on these statistics.

**RECOMMENDATION 28:**
The U.K. government institute a Productivity Commission as a new body

**RECOMMENDATION 29:**
Any Productivity Commission should have independence like the Bank of England

**RECOMMENDATION 30:**
Any Productivity Commission should help businesses and different sectors to report better and more regularly on productivity.

The Commission could make a statement of incompatibility between the existing Government expenditure plans and the overall aim to increase U.K. productivity and reduce the gap between London/the South-East and the rest of the U.K. The U.K. Government could then overrule the Commission, but it would be reluctant to do so.

**RECOMMENDATION 31:**
The Productivity Commission to report annually on the state of U.K. productivity.

The Canadian Centre for Addiction and Mental Health study surprised many with its finding on the $51 billion annual cost of lost productivity and healthcare costs associated with stress and depression. This represents huge long-term, unfunded liabilities and is comparable to the revenues earned by a substantial FTSE 100 business.

126 https://lordslibrary.parliament.uk/autumn-budget-and-spending-review/
Well-being and productivity

Research on the impact of work environment and well-being in organisations on productivity demonstrates that the relationship between productivity growth and well-being is complex.\(^{127}\) In the Nordic countries, work well-being is related to conditions, existing in the workplace.\(^ {128}\) These are physical (light, noise, temperature, repetitive moments and heavy load, etc.) and psycho-social conditions (freedom to organise one’s day, workload, high cognitive demands, predictability, respect, clarity, etc.) It has been proved that reduced physical and mental well-being deteriorate productivity. As it is known, high levels of stress can lead to burnout and reduced labour productivity. A 2020 Australia Productivity Commission report on mental health found that the costs of mental ill health and suicide in Australia are substantial. The direct economic costs of lower economic participation and lost productivity in 2018-19 have been estimated at $12–39 billion.\(^ {129}\) In Canada sustaining healthy workplaces is attracting greater awareness. The Centre for Addiction and Mental Health study surprised many with its finding on the $51 billion annual cost of lost productivity and healthcare costs associated with stress and depression. This represents huge long-term, unfunded liabilities\(^ {130}\) and is comparable to the revenues earned by a substantial FTSE 100 business.

But employees can be trained to be resilient, thus increasing their individual and organisational productivity. Subjective well-being, which is linked

Factors that improve productivity

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130 https://iveybusinessjournal.com/publication/productivity-a-key-to-canadian-innovation-and-prosperity/
to higher productivity can be facilitated to satisfy psychological needs, health and social mobility, thus impacting on productivity. Some environmental factors have been linked to both greater well-being and greater labour productivity. These include air quality, greenery and temperatures. Information and communication technology (ICT) has the potential to support well-being by making communication, autonomy, and more flexible working conditions feasible. Building a culture of trust and creating a sense of purpose within an organisation are linked to productivity enhancements by way of spreading tacit knowledge and reducing adoption and transaction costs. Overall, the organisational capital (knowledge, skills, positive culture, management practices), which relate directly to productivity, is difficult to measure.

Consideration for employee well-being has been discussed during our focus groups. In addition, members surveyed have ranked hybrid working (favoured for its flexibility and work-life balance) and sharing of ideas/ collaborative working culture as top factors, determining growth in productivity, as indicated in the graph below. Members also shared that the pandemic has made leaders more sensitive and open to the needs of the team. It has demonstrated that employees do not need to be supervised closely and that well-being needs to be seen holistically — providing flexibility and leveraging on options when it comes various configurations in the team.

**RECOMMENDATION 33:**

Businesses need to continue looking into way that promote employee's well-being and support a culture of collaboration and care.

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**Productivity and ESG**

The U.K. faces both the challenges of low productivity and climate change. Therefore, on one hand policies need to incentivise productivity, which results in economic growth, increased wages and higher living standard. On the other, they have to facilitate transition to low carbon economies and other ESG objectives.

Financial performance, as a direct result of labour productivity and other factors is regularly monitored by businesses. As for the ESG performance, its significance is gaining momentum and application approaches and challenges are coming to light. When firms pursue a strategy of increasing environmental and social objectives, this creates a trade-off situation, where they need to shift productive resources such as capital, labour, or managerial effort towards achieving positive ESG outcomes and this decreases resources available for revenue-generating activities. At the same time, some assume a positive link between ESG and financial performance, which arises from improved public image and employee motivation and related benefits of selecting, retaining and motivating engaged employees. In a world where the impact of human capital on productivity has increased significantly over the past several decades, as more firms focus on innovation, this sounds plausible. Sharing firm's ethos and desire to commit to social and environmental objectives, as well as having undergone trainings to be able to meet ESG standards has been associated with higher labour productivity under certain conditions.
Expectations for the future are that firms with a good ESG track record will be perceived as good employers and hence will be better able to attract talent, reduce turnover and rely on greater effort by employees. These also signal employer engagement and integrity, which are positively correlated with productivity.

Productivity, ESG and value

The common understanding of productivity is linked to the notion of ‘value’, as interpreted in capitalist economies. By adopting market-based views and assuming the price is a good indicator of the value, we exclude non-market areas, like nature and people from the analysis. In addition, measuring progress towards sustainability turns is challenging due to wide variety of ESG reporting frameworks, where convergence, while highly anticipated does not exist as yet.

Seeking to illuminate the relationship between ESG performance and labour productivity, researchers reviewed ESG data about large U.S. entities and concluded that such link is idiosyncratic. Overall, in some cases, the firm-level relationship between ESG and financial performance is positive, suggesting a benefit to firm’s labour productivity. In other cases, irrespective of the industry comparatives, the correlation is negative, suggesting that in those firms there may be a resource trade-off from investing in ESG, which diminishes labour productivity. But the relationship also varies, depending on which elements of ESG are included in the review. When it comes to relationship with productivity, environmental elements show greater variance than social ones. The research concludes that the industry, in which the firm operates is not a dependency, unlike the size of the business. Results suggest that large firms easily see financial benefit from ESG, while small firms struggle to capitalise on costs incurred.

The same research reviews the effect of legislative changes. When in 2013 mandatory and standardised greenhouse gas emission reporting was introduced in the U.K., which led to a significant drop in the labour productivity of high emitting U.K. firms and an increase in the labour productivity of low emitting U.K. firms. It was also confirmed that making ESG performance visible causes greater alignment with labour productivity. Thus, as ESG reporting frameworks continue to develop and standardise and become a matter of compliance, the ESG labour productivity link will become more positive over time, making ESG an increasingly material financial issue for firms.

In the meantime, in the light of proliferation of ESG reporting frameworks, businesses are encouraged to analyse and prioritise their ESG strategy by deciding how elements of ESG link to firm performance in the context of their corporate characteristics. Thus, they will be in a good position to devise an effective strategy for implementation of practices driving ESG metrics, improving both their financial performance and productivity in the long term.

RECOMMENDATION 34:
More research is needed on links between and how productivity interacts with ESG aims. We recommend this can be conducted by the new Productivity Commission.

As ESG reporting frameworks continue to develop and standardise and become a matter of compliance, the ESG labour productivity link will become more positive over time, making ESG an increasingly material financial issue for firms.

137 Barrymore and Sampson, 2021, ‘ESG Performance and Labor Productivity: Exploring whether and when ESG affects firm performance’
139 Barrymore and Sampson, 2021, ‘ESG Performance and Labor Productivity: Exploring whether and when ESG affects firm performance’
Conclusion: Why productivity is important

The focal point of this report is productivity and its complexities and impact on economic prosperity. Many would be surprised to find out that, measured by median household income, the U.K. is poorer than each of the U.S. states. Per capita GDP of some parts of the U.K. is lower today than that the output now being achieved by what was formerly East Germany. If the U.K. is to ensure that households and workers have more income, then improving productivity is the route to doing this. In other words, from the government’s perspective, productivity has a direct impact on our standards of living and overall wealth.

A survey with some of our members revealed their perception of a direct and powerful relationship between productivity and financial results. More than half of the members surveyed make said that even a 1% increase in productivity would be enough to improve their organisations bottom line as the graph below shows. One-fifth of our informants even say that a 1% improvement in productivity would increase their organisation’s bottom line within the range 5% to 10%.

For most organisations, this would be a significant increase in revenue and profit. Yet, ambiguities around defining, measuring, benchmarking and monitoring productivity have come to light as another critical finding of this research. As evidence, solving the productivity puzzle is an ambitious goal, that calls for collaboration and positive organisation culture. This is where the role of management accountants falls into place. Management accountants are well equipped

To the best of your knowledge, how do you think a 1% increase in productivity would improve your organisation’s bottom line, if at all?

![Graph showing responses to the question: To the best of your knowledge, how do you think a 1% increase in productivity would improve your organisation’s bottom line, if at all?](image-url)
and positioned to combine resources and develop a flexible methodology to measure, monitor and analyse productivity. As trusted business partners, not only within their organisations, but also actively contributing to the economic ecosystem, which they operate within, management accountants are able to embrace new perspectives and tools and actively team up with the government, suppliers, customers and professional organisations in order create seamless solutions that engineer value for all stakeholders.

Productivity is important to organisations, because it allows them to meet their commitments to workers, shareholders, and wider society. As illustrated by the report, improved productivity does not only provide firms with economic benefits but there are wider societal benefits too. In the U.K., where the public sector accounts for around 40% of the economy, improving productivity across the piece, including in public services, would mean citizens getting more efficient services and taxpayers’ money and investment would be better spent. Improved productivity is also highly likely to lead to improved long-term economic growth through the so-called ‘virtuous circle’ of growth. This means that on a long-term basis the state would have stronger public finances and then governments could make decisions whether to channel that in further services spend, cut taxes or a mixture of the two.

Productivity also helps to improve wages, so for individuals there is a clear benefit to improving productivity, as it results in real wage growth. However, for this to come about the link between productivity growth and wages needs to be recoupled away from its decoupling which we briefly mentioned earlier in this report.

Importantly, employees are only likely to see wage growth, stemming from higher productivity, if they have higher skills too. That is why measuring and investing to improve workforce skills in the U.K. is vital. To demonstrate that higher skills significantly help to contribute to higher wages this graph from a UN 2021 Technology and Innovation report.

This table shows how higher skills often significantly correlates with higher wages and as this report has demonstrated this also correlates with higher productivity.

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Employment by skill level, country income grouping (percentage of total civil employment)

![Graph showing employment by skill level and country income grouping.](source: UNCTAD based on data from ILOStat according to the ISCO-08)

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140 Technology and Innovation Report 2021 (unctad.org)
RECOMMENDATION 35:
Introduce a U.K.-wide productivity strategy.

This must include a key set of three objectives that the Commission should seek to achieve. We would suggest that this could include:

1. Any Productivity Commission should be given a mandate like the Bank of England and OBR — independent with clear objectives.

2. The Commission should seek to:
   - Close the productivity gap between the rest of England and London/South-East England by half within ten years.
   - Close the productivity gap between the U.K. and U.S. and Germany.
   - Ensure that all additional Government funding for these regions is under levelling up and the Barnet formula going forward be assessed and cleared by the productivity committee as contributing to closing the gap.
   - Monitor that each unit of local Government be required to state how its expenditure increases local productivity — akin to statements made under the equality act about the distributional impact of Government decisions.
   - An ambitious economic growth target for each of the underperforming regions should be set and agreed with each local authority/on a regional basis with funding linked to the target.

That was confirmed by CIMA members who pointed at the lack of skills in the organisations and on the job market as significant barriers to productivity improvement. This includes inadequate skills and suboptimal management practices within their organisation.

If the U.K. government wishes to improve productivity and create a higher-wage society and more prosperous businesses then they will need a clear plan to get there. The Industrial Strategy has gone and been replaced with the Plan for Growth Strategy. However, the underlying issue with much of the U.K. economy is poor productivity growth. If the government wishes to level up the U.K., create real wage growth and have more sustainable economic growth than they need to have a clear plan to improve productivity.

This is why earlier in the report we called for the creation of a Productivity Commission and why for our final recommendation we call for the U.K. government to have an overarching Productivity Strategy that a Productivity Commission should hold the government’s feet to the fire on delivery against.

Ultimately, we all have a role to play in improving productivity and we are all important cogs in the U.K. productivity mechanism. However, the U.K. government needs to treat this as a great challenge and put the appropriate resources and political capital behind solving the U.K.’s productivity puzzle.
Recommendations

For CIMA

Recommendation 1: CIMA to do more to promote and help members with how they can define and track productivity for their organisation by establishing and promoting existing best practices and creating forums for idea exchange and designing new ideas.

Recommendation 12: Further research is needed on intangible assets and relation to productivity. We propose this is done by the New Productivity Commission we are proposing.

Recommendation 13: CIMA to provide more support, guidance and toolkits to members to help measure productivity better and to take into account for changing nature of work and more intangible assets.

Recommendation 34: More research needed on links between and how productivity interacts with ESG aims.

For Business

Recommendation 18: Business across the U.K. needs to do more to look at international best practice on management skills and culture.

Recommendation 20: U.K. businesses need to take more advantage of R&D and provide more research in line with their OECD peers.

Recommendation 33: Businesses need to continue looking into the way that promotes employee’s well-being and support a culture of collaboration and care.

For policymakers

Recommendation 4: A key focus of the U.K. Government’s levelling up program must be on reducing the regional variations in productivity, while not hampering London and the South East’s existing productivity.

Recommendation 5: U.K. and Regional Government to create productivity and skills hubs via further devolved powers.

Recommendation 6: The U.K. Government and Devolved Governments need to devolve education and skills policy to the regions and Mayoral systems within them.

Recommendation 7: The Government should work with business to encourage more companies to headquarters outside of London.

Recommendation 8: More should be done to allow ‘Zombie Firms’ to leave the market.

Recommendation 9: Competition as a result of Trade Deals and Trade Liberalisation should not be seen as a bad thing.

Recommendation 10: U.K. Trade Deals should seek to liberalise all areas of the economy.

Recommendation 11: The Competition and Markets Authority should conduct a review to ensure U.K. remains the most competitive place to do business.

For members

Recommendation 2: We recommend that members participate in member forums, organised by CIMA and use these opportunities to learn more from other members on how they are leading productivity measurement and improvement in their organisation and to use CIMA materials such as Integrated Performance Management to improve performance and productivity in their organisation.

Recommendation 3: Given how critical the issue of Productivity is, we recommend that members engage with it and proactively set the productivity agenda by initiating discussions and actions in their organisation to establish specific affordances, challenges and barriers. These will also highlight factors of productivity improvements, specific to and actionable in their organisation.
Recommendation 14: The Government should consider granting tax advantages to large companies which make their platforms and networks available to companies in their supplier network, U.K. startups and SMEs.

Recommendation 15: The Government has committed to increase its spending on R&D and businesses will be making decisions based on this commitment. The Government must not row back on its pledge.

The Government must provide greater certainty to businesses to support investment decisions and can do this by committing to reduce taxation on investment through making the super deduction permanent and ruling out further increases in business taxation.

Recommendation 16: Welcome the government’s help to grow management schemes for SMEs.

Recommendation 19: Welcome the recent announcements by HM Treasury on R&D, but the U.K. government needs to do more to stop the regional imbalance of R&D spend and encourage more spend on the Development part of R&D

Recommendation 21: Welcome the creation of the Multiply programme to help improve numeracy skills across the U.K. and the £560 million investment by HM Treasury. A similar scheme for literacy needs to be introduced too.

Recommendation 22: Create Skills Clusters Across the U.K.

Recommendation 23: Higher-Level Apprenticeships Need to be Available Across All of the U.K.

Recommendation 24: Improved skills mapping across the U.K. needed

Recommendation 25: The U.K. Government has opted for a points-based immigration system which seeks to fill skills gaps within the U.K. economy. However, it should consider where the solution in each case is to substitute labour for technology and how immigration contributes to U.K. productivity. Put simply higher low skill immigration reduces U.K. average productivity but increased high skill immigration increases the U.K. average.

Recommendation 26: Mandated Time for Training: Granting U.K. workers a specified period of time to devote to training and providing U.K. employers with compensating advantages in the form of tax relief or other support.

Recommendation 27: Rebuttable Right to Retrain U.K. workers to be able to request training from their employers and for the employer to be required to deal with the request in a reasonable manner.

Recommendation 28: The U.K. government should institute a Productivity Commission as a new body.

Recommendation 29: Any Productivity Commission should have independence like the Bank of England.

Recommendation 30: Any Productivity Commission should help businesses and different sectors to report better and more regularly on productivity.

Recommendation 31: The Productivity Commission to report annually on the state of U.K. productivity.

Recommendation 32: The Commission to have the ability and independence to sound the alarm on productivity issues.

Recommendation 35: Introduce a U.K.-wide productivity strategy.
Acknowledgements

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